

REMARKS

Claims 1-8, 39-47, 51-53, 65-67, 73-76, 77-84, 113-120, and 124-130 were examined in the outstanding office action mailed on 02/28/2005 (hereafter "Outstanding Office Action"). Claims 9-38, 48-50, 54-64, 68-72, 85-112, 121-123, and 131-155 are withdrawn from examination as being directed to non-elected groups of claims.

By virtue of this amendment, the specification is sought to be amended, Claims 118 and 120 are sought to be canceled, Claims 156-161 are sought to be added, and Claims 1-2, 8, 39-40, 65, 73-78, 84, 113, 116, and 130 are sought to be amended. Claims 1-8, 39-47, 51-53, 65-67, 73-76, 77-84, 113-117, 119, 124-130, and 156-161 are thus presented for consideration, further in view of the below remarks.

Figure 5C is sought to be added by separate letter and the corresponding new drawing sheet is included as an attachment in this paper.

Without prejudice to Applicants rights, the non-elected claims are marked as withdrawn in the listing of claims above.

In page 4 of the first office action dated January 27, 2005, it was stated that, "Any explanations of which claims are directed toward what figures and subject matter would be greatly appreciated." Applicants apologize for not providing the requested information in the previous response, and wish to note that the requested information was moot in view of the traversing of the restriction requirement. The inconvenience caused to the Examiner is regretted and the requested information is provided below.

In the explanation on support for claims below, reference to Figures also includes the corresponding detailed description in the specification.

Group I contains Claims 1-8, 39-47, 51-53, 65-67, 73-76, 77-84, 113-120 and 124-130. Claims 1-8, 39-47, 51-52, 65-67, 73-76, 77-84, 113-120, and 126-129 are supported at least by Figures 1, 4B, 4C, 5A-5B and 23. Claim 53 is supported by Figures 13 and 14, Claim 124 is supported at least by Figures 15, 16, 17 and 23, Claim 125 by Figures 2 and 3, and Claim 130 is supported at least by Figures 20-23.

Group II contains Claims 1, 9-13, 35-38, 54-56, 71, 77, and 85-89. The support for Claims 1 and 77 is noted above with respect to Group 1. Claims 9-13, 35-38, 55, 71 and 85-89 are supported at least by Figures 15-17 and 23, Claim 54 is supported at least by Figures 5B, 15-17 and 23, and Claim 56 is supported at least by Figures 2 and 3.

Group III contains Claims 1, 14-28, 77, 90-104, 131, 132, 143 and 144. The support for Claims 1 and 77 is noted above with respect to Group 1. Claims 14-28, 90-104 and 105-107 are supported at least by Figures 6A, 7B, 7C, 9-14 and 23, Claims 131, 132, 143 and 144 are supported at least by Figures 7B, 7C, and 9-11.

Group IV contains Claims 1, 14, 29-31, 77, 90 and 105-107. The support for Claims 1 and 77 is noted above with respect to Group 1, and for Claims 14 and 90 is noted above with respect to Group III. Claims 29-31 and 105-107 are supported at least by Figures 6A, 8A, 8B, 9-11, and 23.

Group V contains Claims 1, 32-34, 61-64, 77, and 108-112. Support for Claims 1 and 77 is noted above with respect to Group 1. Claims 32-34, 61-64, and 108-110 are supported by Figures 20-23. Claims 111 and 112 are supported by Figures 2 and 3.

Group VI contains Claims 48-50, 68-70, 121-123, 133-142, and 145-155. Claims 48-50, 68-69, 121 and 122 are supported at least by Figures 6A and 23, Claim 70 is supported at least by Figures 19 and 23, Claim 123 is supported at least by Figures 20-23, Claims 133-142 and 145-154 are supported by Figures 7B, 7C, 8A, 8B, 9-12 and 23, and Claim 155 is supported by Figures 23 and 24.

Group VII contains claims 57-60. Claims 57-60 are supported at least by Figures 18A, 18B, 19, and 23.

Claim Objections

As suggested in point 2 (page 3 lines 1-2) of the Outstanding Office Action, the parentheses are removed from Claim 8. Withdrawal of the objection with respect to Claim 8 is respectfully requested.

In response to the objection with respect to Claim 73 in point 2 page 3 lines 3-4, Claims 73-76 are sought to be amended to replace "device of" with "method of". Withdrawal of the objection with respect to Claim 73 is respectfully requested.

Claims 9-38, 48-50, 54-64, 68-72, 85-12, 121-123, and 131-155 are marked as being in 'Withdrawn' status as noted above in the section on Election/Restriction.

Claim Rejections - 35 U.S.C. § 112

Claims 1 -8, 39-47, 51 -53, 73-76, 77-84, and 124-130 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Reconsideration is respectfully requested in view of the information on support for the claims provided above in the section on Election/Restriction, as well as the below remarks.

In paragraph 3 point 4 in page 3 of the Outstanding Office Action, with respect to Claims 1-8, it was alleged that:

It is not understood toward what Claim 1 is directed. It appears Claim 1 may be directed toward Fig. 5B. According to Claims 3 and 4 it would appear that the second transistor is directed toward transistor 340. This would leave transistor 370 as the first transistor, however, transistor 370 is not seen to receive a voltage substantially equaling the high voltage AVDD as recited in Claim 1. Thus, support is not seen for claims 1-8. Claims 1-8 are not properly enabled.

It is first noted that the 'low voltage transistor' of Claim 1 would read on several transistors (e.g., 320, 340, 350, 360, 370, 380) of the disclosed embodiments. Each of these transistors would receive a voltage substantially equaling the high voltage AVDD since the transistors in the path to the corresponding transistor from AVDD are turned on. With respect to Claim 3 referred to in the above rejection, the second transistor is supported by transistor 340.

Withdrawal of the rejection under 35 U.S.C. § 112 in relation to Claims 1-8 is respectfully requested.

In paragraph 4 of point 4 in page 3 of the Outstanding Office Action, with respect to Claims 39-44, it was alleged that:

The low voltage transistor recited in Claims 39-44 appears to be directed toward transistor 340. However, Claim 45 seems to direct the low voltage transistor toward transistor 410, but 410 does receive the high supply voltage. Claim 46 appear to be directed toward still a different transistor 370. Proper support is not seen for Claims 39-47. Claims 39-47 are not properly enabled.

Again, as noted above, the 'low voltage transistor' of (generic) Claim 39 would read on several transistors (e.g., 320, 340, 350, 360, 370, 380, 410) of the disclosed embodiments. The low voltage transistor of Claim 45 would specifically read on transistor 410. It is noted that the source terminal of Claim 45 is recited as being connected to the high supply voltage (consistent with the recitation in Claims 39 and 40 and also with Figure 5B).

The NMOS transistor of Claim 46 would read on transistor 410 of Figure 5C, sought to be added above.

Withdrawal of the rejection under 35 U.S.C. § 112 in relation to Claims 39-47 is respectfully requested.

In paragraph 5 of point 4 in page 4 of the Outstanding Office Action, it was alleged that:

The Figures do not appear to disclose an NMOS transistor receiving a clock signal as recited in Claim 51 or the clock generator disclosed in Claim 53. Proper support is not seen for Claims 51-53. Claims 51-53 are not properly enabled.

The NMOS transistor is supported by Figure 5C sought to be added. The clock generator of Claim 53 is supported at least by Figures 13, 14 and 23.

Withdrawal of the rejection under 35 U.S.C. § 112 in relation to Claims 51-53 is respectfully requested.

Similarly, Claims 73-76 rejected under 35 U.S.C. §112 in paragraph 7 of point 4 in page 4 of the Outstanding Office Action, are supported by Figures 5B and 5C, and withdrawal of the rejection is respectfully requested.

Claims 77-84 were also rejected under 35 U.S.C. § 112 in paragraph 8 of point 4 in page 4 of the Outstanding Office Action. The rejection is respectfully traversed for reasons similar to those noted above with respect to Claims 1-8.

With respect to Claims 116-119 rejected under 35 U.S.C. § 112 in paragraph 10 of point 4 in page 5 of the Outstanding Office Action, the low voltage transistor there is supported at least by transistors 320, 340, 350, 360, 370 and 380.

The rejection under 35 U.S.C. § 112 with respect to Claim 120 is rendered moot since Claim 120 is sought to be canceled.

With respect to Claims 124 and 125, it was alleged in paragraph 12 of point 4 in page 5 of the Outstanding Office Action that:

There appears to be no support for the detecting step recited in Claim 124. Claim 124 and 125 are not properly enabled.

It is respectfully pointed out that the detecting feature is supported by Figures 15, 16, 17 and 23. Withdrawal of the rejection with respect to Claims 124 and 125 is respectfully requested.

With respect to the rejection of Claims 126-130 rejected under 35 U.S.C. § 112 in point 4 paragraph 13 in page 5 of the Outstanding Office Action, it is noted that the NMOS transistor is supported by Figure 5C, as noted above. Withdrawal of the rejection with respect to Claims 126-130 is respectfully requested.

With respect to claim 130, it was alleged in point 4 paragraph 14 in page 5 of the Outstanding Office Action, "There appears to be no support for the biasing and determination steps recited in Claim 130". In response, Claim 130 is sought to be amended to replace "biasing signal" with "reference signal". The amendment is believed not to introduce new matter and its entry is respectfully requested.

The amended Claim 130 is supported by Figures 20-22. In particular, the reference signal is supported by the voltage or current signal transmitted from analog portion 2010 to regulator 2030. The second supply voltage is supported by AVDD on path 101 and the determination feature is supported by comparator 2260. Withdrawal of the rejection is respectfully requested.

Thus, all the rejections under 35 U.S.C. § 112 are believed to be overcome.

Claim Rejections 35 U.S.C. § 102

Claims 1-5, 39, 40, 65-67, 77-81, 113-116, and 120 were rejected under 35 U.S.C. 102(b) as being anticipated by Kobatake (USPN 5,729,155) (hereafter "Kobatake"). Reconsideration is respectfully requested in view of the foregoing amendments and the remarks below.

Amended Claim 1 recites that, "..., said low voltage transistor receiving and propagating an analog signal which potentially varies continuously with time." Kobatake does not disclose or suggest such a feature since the disclosure in Kobatake appears to be related only to propagation of digital signals. Accordingly Claim 1 is allowable over Kobatake.

Claims 2-8 and 156-158 are allowable at least as depending from an allowable base claim.

Claim 156 is independently allowable at least as reciting that the low voltage transistor operates in a saturation mode when propagating the input analog signal. On the other hand, the low voltage transistors of Kobatake are designed to transfer digital signals based on turning on/off the transistors, and thus would operate in active mode when propagating signals.

Claim 157 is independently allowable at least as reciting that the low voltage transistor is comprised in an amplifier. The disclosure of Kobatake appears to be directed to a voltage level shift circuit.

Claim 158 is independently allowable at least in reciting that a single integrated circuit is recited as containing both high voltage and low voltage transistors. The high voltage transistors can be advantageously used, for example, to achieve high signal-to-noise-ratio (SNR).

Independent Claims 39, 65, 77, and 113 are also allowable over Kobatake for reasons similar to those noted above with respect to amended claim 1. New Claims 159-161 are also independently allowable for reasons noted above with respect to Claims 156-157.

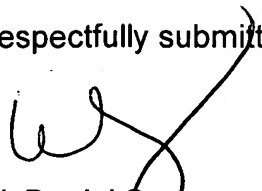
Thus, all the objections and rejections in the Outstanding Office Action are believed to be overcome. Should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. Daniel Swayze, Jr.', written over the typed name.

W. Daniel Swayze, Jr.
Attorney for Applicant
Reg. No. 34,478

Texas Instruments Incorporated
P.O. Box 655474, MS 3999
Dallas, TX 75265
(972) 917-5633